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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

LAMB, TWYLER MARIE

ART UNIT

PAPER NUMBER

2622

DATE MAILED: 08/27/2002

5

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.
09/362,020

Applicant(s)

Meyer et al.

Examiner

Twyler Lamb

Art Unit

2622



-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on May 29, 2002.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above, claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
*See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____ 6) ☐ Other:

Art Unit: 2622

Response to Response

1. This action is responsive to the following communications: Response filed on 5/29/02.
2. This application has been reconsidered. Claims 1-20 are pending.

Claim Rejections - 35 U.S.C. § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371 of this title before the invention thereof by the applicant for patent.

4. Claims 1-4, 8, 9, 13-15 and 19-20 are rejected under 35 U.S.C. 102(e) as being anticipated by Zeng (US 6,038,039).

With regard to claim 1, Zeng discloses an improved electronically stored font (which reads on an enhanced image with smooth edges) (col 4, lines 60-64) for use in an electrostatographic machine, comprising: a font representation (According to page 12, lines 7-13, the font representation is defined as a collection of capital and lower case letters, numeric and special characters of one particular type face and style to be utilized in electronic displays and printers, which reads on image data suitable for use in a digital printer, copier or facsimile which represent text or line art) (col 3, line 64 - col 4, line 1; col 4, lines 12-24); and a non-printing auxiliary pixel

Art Unit: 2622

embedded in the font representation to improve the printing of the font (which reads on edge smoothing by adding in fill-in pixels to smooth sharp edges in the curves and diagonals of character strokes) (col 4, lines 47-59).

With regard to claim 2, Zeng also discloses wherein the auxiliary pixel comprises a “black” auxiliary pixel (col 5, lines 9-12).

With regard to claim 3, Zeng also discloses wherein the auxiliary pixel comprises a “white” auxiliary pixel (col 5, lines 9-12; col 8, lines 43-49).

With regard to claim 4, Zeng also discloses wherein the font representation is a bit map type (col 4, lines 24-25).

With regard to claim 8, Zeng discloses a method for improving a text image (which reads on an enhanced image with smooth edges) (col 4, lines 60-64), comprising receiving text data (which reads on image data suitable for use in a digital printer, copier or facsimile which represent text) (col 3, line 64 - col 4, line 1; col 4, lines 12-24); and processing the text data with a font representation (According to page 12, lines 7-13, the font representation is defined as a collection of capital and lower case letters, numeric and special characters of one particular type face and style to be utilized in electronic displays and printers, which reads on image data suitable for use in a digital printer, copier or facsimile which represent text or line art) (col 3, line 64 - col 4, line 1; col 4, lines 12-24) including embedded non-printing auxiliary pixels therein (which reads on edge smoothing by adding in fill-in pixels to smooth sharp edges in the curves and diagonals of character strokes) (col 4, lines 47-59).

Art Unit: 2622

With regard to claims 9 and 15, Zeng also discloses wherein the step of processing includes using a font representation of a bit map type (col 4, lines 24-25).

With regard to claim 13, Zeng discloses in a digital imaging system (Figure 1, Digital Platemaker DPM 2000 system, col 4, lines 2-3), a method for optimizing a rendition of a text image (which reads on an enhanced image with smooth edges) (col 4, lines 60-64), comprising: receiving text data (which reads on image data suitable for use in a digital printer, copier or facsimile which represent text) (col 3, line 64 - col 4, line 1; col 4, lines 12-24); and processing the text data with a font representation (According to page 12, lines 7-13, the font representation is defined as a collection of capital and lower case letters, numeric and special characters of one particular type face and style to be utilized in electronic displays and printers, which reads on image data suitable for use in a digital printer, copier or facsimile which represent text or line art) (col 3, line 64 - col 4, line 1; col 4, lines 12-24) including therein embedded non-printing auxiliary pixels to improve the rendition of the text image (which reads on edge smoothing by adding in fill-in pixels to smooth sharp edges in the curves and diagonals of character strokes) (col 4, lines 47-59).

With regard to claim 14, Zeng also includes wherein the step of processing comprises generating image text using a processing system including a digital font end col 4, lines 2-64).

With regard to claim 19, Zeng also includes wherein the bit map representation has auxiliary pixels as previously stored therein (which reads on edge smoothing by adding in fill-in pixels to smooth sharp edges in the curves and diagonals of character strokes) (col 4, lines 47-59).

Art Unit: 2622

With regard to claim 20, Zeng also includes wherein the bit map representation has auxiliary pixels inserted therein by a method comprising: stepping a $n \times n$ window across each pixel location in the bit map (which reads on searching the image data pixels for four types of oriented corners to define the origin of the image to determine where to add the fill-in pixels) (col 5, line 4 - col 6, line 49); counting the number of "on" pixels in the window (col 5, lines 9-12); and comparing the number against a set threshold number to determine if the location is in an area of font detail (which reads on ensuring that fill-in pixels are not added to shapes that are properly formed (col 6, lines 50-57).

Claim Rejections - 35 U.S.C. § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 5-7, 10-12 and 16-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zeng (US 6,038,039) in view of Zack et al. (US 5,459,828).

With regard to claim 5, Zeng does not teach wherein the font representation is a contour type. Zack et al. discloses a method of producing a raster font that teaches wherein the font representation is a contour type (Figure 1, contour font 10, col 3, lines 3-7). Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to have

Art Unit: 2622

modified Zeng to include wherein the font representation is a contour type as taught by Zack et al. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Zeng by the teaching of Zack et al. to convert contour fonts to bitmap fonts with automatic thickening and thinning to produce a raster font as taught by Zack et al. in col 2, lines 38-55.

With regard to claim 6, Zeng does not teach wherein the font representation is a spline-knot type. Zack et al. discloses a method of producing a raster font that teaches wherein the font representation is a spline-knot type (According to page 12, lines 19-20, contours may be represented by spline knots and stored on disk to be rasterized later, which reads on a contour font being analyzed and altered to produce a raster font) (Figure 1, contour font 10, col 3, lines 3-7; col 2, lines 38-55). Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Zeng to include wherein the font representation is a spline-knot type as taught by Zack et al. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Zeng by the teaching of Zack et al. to convert contour fonts to bitmap fonts with automatic thickening and thinning to produce a raster font as taught by Zack et al. in col 2, lines 38-55.

With regard to claim 7, Zeng does not teach wherein the font representation is a bit meta type. Zack et al. discloses a method of producing a raster font that teaches wherein the font representation is a meta type (According to page 12, lines 22-26, meta type font representation contains no art work master to start with and spline functions are used instead to form the median

Art Unit: 2622

or skeleton of the desired font map, which reads on a hint which defines the parameters defining the font) (Figure 12, hint generation step 20, col 3, lines 6-58). Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Zeng to include wherein the font representation is a meta type as taught by Zack et al. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Zeng by the teaching of Zack et al. to simplify the type of information necessary to produce a raster font as taught by Zack et al. in col 3, lines 54-58.

With regard to claims 10 and 16, Zeng does not teach wherein the step of processing includes using a font representation of a contour type. Zack et al. discloses a method of producing a raster font that teaches wherein the font representation is a contour type (Figure 1, contour font 10, col 3, lines 3-7). Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Zeng to include wherein the font representation is a contour type as taught by Zack et al. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Zeng by the teaching of Zack et al. to convert contour fonts to bitmap fonts with automatic thickening and thinning to produce a raster font as taught by Zack et al. in col 2, lines 38-55.

With regard to claims 11 and 17, Zeng does not teach wherein the step of processing includes using a font representation of a spline-knot type. Zack et al. discloses a method of producing a raster font that teaches wherein the font representation is a spline-knot type (According to page 12, lines 19-20, contours may be represented by spline knots and stored on

Art Unit: 2622

disk to be rasterized later, which reads on a contour font being analyzed and altered to produce a raster font) (Figure 1, contour font 10, col 3, lines 3-7; col 2, lines 38-55). Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Zeng to include wherein the font representation is a spline-knot type as taught by Zack et al. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Zeng by the teaching of Zack et al. to convert contour fonts to bitmap fonts with automatic thickening and thinning to produce a raster font as taught by Zack et al. in col 2, lines 38-55.

With regard to claims 12 and 18, Zeng does not teach wherein the step of processing includes using a font representation of a bit meta type. Zack et al. discloses a method of producing a raster font that teaches wherein the font representation is a meta type (According to page 12, lines 22-26, meta type font representation contains no art work master to start with and spline functions are used instead to form the median or skeleton of the desired font map, which reads on a hint which defines the parameters defining the font) (Figure 12, hint generation step 20, col 3, lines 6-58). Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Zeng to include wherein the font representation is a meta type as taught by Zack et al. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Zeng by the teaching of Zack et al. to simplify the type of information necessary to produce a raster font as taught by Zack et al. in col 3, lines 54-58.

Art Unit: 2622

Response to Arguments

7. Applicant's arguments filed 5/29/02 have been fully considered but they are not persuasive.

Applicant argues that Zeng does not teach auxiliary pixels. Zeng teaches utilizing fill-in pixels for edge smoothing which is substantially the same as the non printing auxiliary pixels which affect their neighboring pixels.

Conclusion

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Art Unit: 2622

9.. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Twyler Lamb whose telephone number is (703) 308-8823.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 305-4700.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks
Washington, DC 20231

or faxed to:

(703) 308-9051 (for formal communications intended for entry)


(703) 308-5397 (for informal or draft communications, such as proposed amendments to be

discussed at an interview; please label such communications "PROPOSED" or "DRAFT")

or hand-carried to:

Crystal Park Two
2121 Crystal Drive
Arlington, VA.
Sixth Floor (Receptionist)

Twyler Lamb


August 26, 2002


MARK WALLERSON
PRIMARY EXAMINER